

WHAT IS CLAIMED IS:

- 1        1. A distributed emergency building lighting system comprising:  
2                an electroluminescent (EL) panel;  
3                means for providing electrical power to illuminate said EL panel; and  
4                control means electrically coupled to said electrical power means and  
5                said EL panel for illuminating a predetermined designated area within the  
6                building in response to an input stimulus.
  
- 1        2. Emergency building lighting system as defined in claim 1, wherein said  
2                predetermined designated area further comprises low-level path marking to  
3                provide visual delineation of the path of egress.
  
- 1        3. Emergency building lighting system as defined in claim 1, wherein said  
2                predetermined designated area further comprises floor illumination within a  
3                prescribed distance from at least one wall of a room in accordance with code  
4                requirements.
  
- 1        4. Emergency building lighting system as defined in claim 2, wherein said  
2                EL panel is a stripe of indeterminate length located on one or more of a  
3                designated area including on a floor and on a wall at or near the floor in  
4                accordance with code requirements.
  
- 1        5. Emergency building lighting system as defined in claim 2, wherein said  
2                EL panel lights an exit sign at or near the floor in accordance with code  
3                requirements.
  
- 1        6. Emergency building lighting system as defined in claim 1, wherein said  
2                power means further comprises an EL power supply having an input coupled  
3                to the line side of an electrical switch supplying commercial AC power to the  
4                conventional lighting located in said designated area and to a DC voltage  
5                source in the absence of AC power at the line side of said electrical switch.

1       7. Emergency building lighting system as defined in claim 6, wherein said  
2       EL power supply further includes means for adjusting the light intensity of the  
3       EL panel to a desired intensity.

1       8. Emergency building lighting system as defined in claim 1, wherein said  
2       control means further includes self-diagnostic testing means for verifying  
3       operational conditions of the lighting system including the detection of an  
4       electrical short circuit and an electrical open circuit of an EL panel coupled to  
5       said control means.

1       9. Emergency building lighting system as defined in claim 8, wherein said  
2       self-diagnostic testing means includes detection of a normal operating circuit  
3       of an EL panel coupled to said control means.

1       10. Emergency building lighting system as defined in claim 8, wherein said  
2       self-diagnostic testing means includes detection of an inoperative electrical  
3       power means.

1       11. Emergency building lighting system as defined in claim 8, wherein said  
2       self-diagnostic testing means further comprises testing means for determining  
3       the charge capacity of the battery.

1       12. Emergency building lighting system as defined in claim 11, wherein  
2       said battery testing means further comprises means for connecting a test  
3       electrical load to the battery for a predetermined short time interval;  
4               means for sensing the battery voltage during the short time interval that  
5       said test electrical load is connected, and  
6               means for providing an alarm indication in response to the battery  
7       voltage falling below a predetermined voltage value during the voltage sensing  
8       time interval.

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1       13. Emergency building lighting system as defined in claim 12, wherein the  
2       test electrical load is in the range of 10 to 20 times the electrical load of the  
3       emergency building lighting system.

1       14. Emergency building lighting system as defined in claim 13, wherein  
2       said predetermined short time interval is in the range of 10 to 30 seconds.

1       15. Emergency building lighting system as defined in claim 8, further  
2       comprising means for activating said self-diagnostic testing means in  
3       accordance with a predetermined time schedule.

1       16. Emergency building lighting system as defined in claim 8, further  
2       comprising means for manually activating said self-diagnostic testing means.

1       17. Emergency building lighting system as defined in claim 8, further  
2       comprising means for activating said self-diagnostic testing means in response  
3       to the conventional lighting located in said designated area being turned on  
4       and off.